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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,395

05/10/2005

Mark A Weber

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2857

25889

7590

09/09/2008

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EXAMINER

PRITCHETT, JOSHUA L

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,395	<b>Applicant(s)</b> WEBER, MARK A	
	<b>Examiner</b> JOSHUA L. PRITCHETT	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,4,6-9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4,6-9 and 11-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

This action is in response to Amendment filed July 24, 2008. All applicant's arguments were considered.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-10 and 12-15 rejected under 35 U.S.C. 102(b) as being anticipated by West (US 4,963,018).

Claims 3, 4, 6-9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over West (US 4,963,018) in view of Tiziani ("Three dimensional analysis by a microlens-array confocal arrangement").

Regarding claims 16 and 17, West teaches method in computer-controlled microscopy, for producing surface images of the internal surfaces of cylinders in engine blocks (col. 1 lines 60-65), by using a microscope having a microscope body (Fig. 1), a tube (11) attached to the microscope body and having a lens (46), which is preceded by a deflection optical system (41 or

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44) having a horizontal translator (col. 3 line 62 –col. 4 line 10). West teaches the deflection optical system deflects the beam by less than 90-degrees (44; Fig. 2). West teaches a device for attaching and adjusting the computer-controlled confocal microscope to be moved into cylinders of engine blocks, to measure the internal surfaces of the cylinders (col. 3 lines 45-55). West lacks reference to a three dimensional image. Tiziani teaches a microscope capable of creating a three dimensional confocal image of an object (page 1 col. 1). Tiziani teaches using a Nipkow disk, a beam splitter, a light source and a CCD camera (page 2 col. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the West invention include the elements of Tiziani for the purpose of creating an image to determine the structure of the wall of an engine cylinder and the presence of any corrosion.

Regarding claim 2, West teaches a deflection optical system located ahead of the lens (Fig. 2).

Regarding claim 3, West teaches the deflection optical system consists of a reflection prism (41).

Regarding claim 4, West teaches the deflection optical system consists of a surface mirror (44).

Regarding claims 6 and 7, West teaches the invention as claimed but lacks reference to the equalization length. The current specification fails to mention equalization length. The examiner therefore is interpreting the equalization length to be similar to that of the focal length. West teaches the focus of the microscope is adjustable (col. 3 line 62 – col. 4 line 10). Therefore it would be within the skill of one of ordinary skill in the art at the time the invention was made to have the focal length be a wide range of distances including 45mm and shorter distances. It

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would have been obvious to one of ordinary skill in the art at the time the invention was made to have the West reference have the claimed equalization length as suggested by West for the purpose of viewing the wall of the cylinder at different distances to obtain an in-focus image of the cylinder wall.

Regarding claim 8, West teaches the lens can be moved by means of a piezo setting element (col. 6 lines 53-55).

Regarding claim 9, West teaches the lens can be moved by means of a stepper motor (15).

Regarding claim 11, West teaches the invention as claimed but lacks reference to a clamp or screw attachment. West suggests the use of a positioner (13) on the microscope. The tabs 13 as seen in Fig. 2 act very similar to a clamp because the tabs act to hold the microscope in place relative to the cylinder during inspection of the cylinder wall. The examiner interprets the tabs as taught by West to be an obvious equivalent of a clamp. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the West invention include a clamp for the purpose of more securely holding the microscope in place relative to the cylinder being inspected.

Regarding claim 12, West teaches the microscope can be moved into the cylinder by means of a linear guide (col. 3 lines 34-40).

Regarding claim 13, West teaches the microscope is adjustable and can be fixed in place with regard to the insertion depth, by means of the linear guide (col. 3 lines 34-60).

Regarding claim 14, West teaches the attachment device of the adjustment device allows a rotation about the cylinder axis (col. 2 lines 20-25).

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Regarding claim 15, West teaches the attachment allows an adjustment of the distance between the lens and the internal surface of the cylinder, in other words focusing (col. 3 line 62 – col. 4 line 10).

### ***Response to Arguments***

Applicant's arguments filed July 24, 2008 have been fully considered but they are not persuasive.

Applicant argues if one skilled in the art would replace the measuring head in West by the lens, prism and positioning element of Applicant's device the rotation axis in West would no longer be identical to the cylinder axis. The rejection does not include use of Applicant's device since Applicant's device does not qualify as prior art. The examiner does not understand the rationale for this argument. Further, there are no limitations in the claim language regarding the rotation axis.

Applicant argues a cylinder with a small diameter and a usual length lens would result in undue experimentation to change the West reference to include three-dimensional surface pictures. There are no limitations in the claim language as to the size of the cylinder or the size of the lens therefore this argument is not persuasive.

Applicant argues neither West nor Tiziani teach guiding a beam by an angle less than 90-degrees. As stated in the rejection above the West reference teaches this claim limitation since the light reflected off mirror (44) is guided toward the surface at an angle of less than 90-degrees as seen in Fig. 2 of West.

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In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA L. PRITCHETT whose telephone number is (571)272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joshua L Pritchett/  
Primary Examiner  
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